

REMARKS/ARGUMENTS

In the Office Action Claims 1-23, were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In particular, the Examiner stated that the phrase "substantially no functional groups positioned along said silicone polymer" in Claim 1 does not clearly recite that the "functional groups" are epoxy groups or that the "functional groups" are not present along the backbone of the silicone polymer.

In response, Applicant has Amended Claims 1 and 23 to clearly and distinctly point out that the claimed epoxy-terminated linear silicone polymer has substantially no "epoxy" functional groups along "the backbone of" the polymer. Applicant respectfully submits that the amendments to the claims are fully supported by the originally filed specification and that no new matter has been added. In view of the foregoing, it is respectfully requested that the amendment be entered and the rejection of Claims 1-23 be reconsidered and withdrawn.

In the Office Action, the Examiner rejected Claims 1-23 under the provisions of 35 U.S.C. §103 (a) as being obvious over Eckberg et al. U.S. Patent No. 5,814,679 ("Eckberg et al.") in view of Desorcie et al. U. S. Patent No. 5,010,118 ("Desorcie").

Reconsideration is respectfully requested in view of this amendment.

The present invention is directed to an ultra-violet or electron beam curable silicone coating composition comprising an epoxy-terminated linear silicone of preferred chain length, bearing reactive functional groups at the chain-stopper position and substantially no epoxy functional groups along the backbone of the polymer chain, a carbinol functional

silicone, an alkylphenol additive and compatible iodonium salt photocatalysts. The novel silicone compositions provide unexpectedly stable photocurable compositions that can be readily applied to conventional substrates. The novel compositions can be efficiently cured to adhesive coatings on exposure to ultraviolet light. The compositions of the present invention, when coated and cured, also provide for unique and useful release properties and release performance from conventional pressure sensitive adhesives (PSA's) in the form of tapes or labels.

Applicant respectfully submits that the applied prior art does not disclose such novel compositions. Specifically, the present amended claims are novel and unobvious over Eckberg '679 because, *inter alia*, Eckberg '679 describes improved lower release force photocured epoxysilicone coatings that are prepared with carbinol containing siloxane, photo-catalyst and non-specific epoxy functional polydiorganosiloxane bearing reactive epoxy functional groups at the chainstopper positions and along the backbone of the linear silicone.

Eckberg et al. teaches the use of certain mono- or poly- carbinol functional silicone additives to conventional poly-epoxy functional silicone polymers wherein the reactive cycloaliphatic epoxy groups are present along the backbone of the linear polymer chains as well as in chain-stopper positions. These additives, when of a linear polydimethylsiloxane structure end-capped by chainstopper groups that include the carbinol (or poly-carbinol) functionality, modify the release performance of the photocured silicone coatings derived

therefrom by making release both lower and smoother, and by reducing the coefficient of friction of the cured coating. Specifically, Eckberg '679 teaches novel silicone polymers that are useful for modification of release performance without regard to effect on catalyzed life.

In order to establish a *prima facie* case of obviousness it is necessary for the Examiner to present evidence preferably in the form of some teaching, suggestion, incentive or inference in the applied prior art that one having ordinary skill in the art would have been led to do what the applicants have done. See *Ex parte Levengood*, 28 USPQ2d 1300, 1301 (BPAI 1993); and *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353-54 (Bd. App.1984). In short, the citations must “suggest the desirability of the combination” that is claimed. MPEP 2143.01 at I and MPEP 2145 at X C. Statements with regard to relevant skill in the art do not suffice to “bridge over gaps in substantive presentation of an obviousness case.” *Al-site Corp. v. VSI International, Inc.*, 174 50 USPQ2d 1161 (Fed. Cir. 1999).

In this regard, nowhere in Eckberg et al. is there a suggestion or motivation to use epoxy-terminated silicone polymers *of a preferred chainlength*, with reactive groups, e.g., cycloaliphatic epoxy, located only at the chainstopper position, as presently claimed, with (poly)carbinol-containing silicone to provide one-part compositions having unexpectedly long catalyzed shelf life, even at elevated temperatures. Moreover, Eckberg et al. discloses the use of linear epoxy functional silicone polymers that are three times longer and have considerably greater epoxy functionality than the instantly claimed epoxy-terminated linear silicone polymers (see Eckberg et al. col. 16, lines 17-23, wherein linear epoxy silicone

polymer Examples F and G of the general structure, $M^E D_x D_y^E M^E$, have an epoxy equivalent weight of 1100 and 1325, respectively).

The Examiner's assertion that the instant claims are obvious over Eckberg et al. in view of Desorcie which describes the use of alkylphenol and aliphatic diol reactive diluents as solubilizing agents in photocurable epoxysilicone based release coatings is unsupported. Desorcie teaches photocurable, photocatalyzed epoxysilicones that include alkylphenols to provide non-toxic, tack free adherent release coating for pressure sensitive adhesives. Specifically, nowhere in the Desorcie disclosure is there a suggestion or motivation to use epoxy silicones of a preferred chain length having epoxy functional groups only at the chainstopper positions with alkylphenols for increased the shelf life.

Prior art references may be combined to establish obviousness if there is some suggestion, either explicitly or implicitly, to a person of ordinary skill in the art to combine the references to arrive at the claimed subject matter. *See Pro-Mold and Tool Co., Inc. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 37 U.S.P.Q. 1626 (Fed Cir. 1996). However, the fact that a prior art device could be modified so as to produce the claimed device is not a basis for an obviousness rejection unless the prior art suggested the desirability of such a modification. *In re Gordon*, 773 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

Furthermore, when combining references, it is inappropriate to use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the

claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988); *see also In re Gorman*, 933 F.2d 982, 18 U.S.P.Q. 2d 1885 (Fed. Cir. 1991) (“It is impermissible ... simply to engage in a hindsight reconstruction of the claimed invention, using the applicant’s structure as a template and selecting elements from references to fill the gaps.”). *See also, Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985)

The Applicant respectfully submits that the cited references fail to disclose or teach each element of the Applicant’s claims and also fail to provide the requisite suggestion to do what the Applicant has done. For these reasons alone, the rejection of the claims is insufficient as a matter of law. *Ex parte Levengood*, 28 USPQ2d 1300, 1301-02 (BPAI 1993).²

In making a 103 rejection it is incumbent on the Examiner to show that there is the requisite motivation to combine the references. The Examiner stated that the requisite motivation comes from “a reasonable expectation of providing a useful release composition” and that one skilled in the art would have been motivated to combine these references because he would have expected to “control the crosslinking in the product by controlling the amount of epoxy functionality along the silicone chain.”

Stating that the cited art have an “a reasonable expectation of providing a useful release composition ” does not release the Examiner of his burden of demonstrating where in

Eckberg et al. there is a suggestion to utilize epoxy-terminated silicone polymers *of a preferred chainlength* as required by the instant claims. Further, why one would have looked to Desorcie et al. to limit the epoxy silicone polymers to a specific size and functionality. The kind of suggestion which would have “strongly motivated” one to combine the references to arrive at the process as described in the instant claims. *Ex parte Graselli*, 231 USPQ 393, 394 (Bd. App. 1983). The type of motivation that would have “impelled” one to do so (*Levengood*, 28 USPQ2d at 1302), and the type of suggestion that a linear epoxy silicone polymer having the limitations required by the claims “should” be used. *Ex parte Markowitz*,¹⁴³ USPQ 303, 305 (Bd. App. 1964). But that, too, is what a conclusion of obviousness requires. See *Levengood*, 28 USPQ2d at 1302. The Examiner has not addressed these elements, but without these elements, obviousness cannot be established.

Moreover, we note that Eckberg et al. does not mention any problem with the compositions described therein that uses linear epoxy silicone polymers that are three times the length and provide considerably greater epoxy functionality for modification of release performance. In other words, Eckberg et al. does not provide any dialogue that using epoxy-terminated silicone polymers of a specific length with reactive groups exclusively at the chainstopper position would provide release compositions with significantly longer shelf life. Thus, based on the lack of this discussion one skilled in the art would not look to the references to change the epoxy silicones described in Eckberg et al. This is yet another reason why Eckberg et al. does not provide the requisite suggestion or motivation or other reason, including the suggestion of desirability, to be combined with Desorcie.


Application No. 10/721,394
Amendment dated March 3, 2006
Reply to Office Action of November 14, 2005

Attny. Docket No. 1302-59 (US 138361)

What the rejection distills down to is that one “would have” or “would have been able to” do what the applicant has done. That, however, is not the standard under 35 U.S.C. 103, and has been long rejected as a substitute for the elements required by the Examiner to meet his burden of establishing a *prima facie* case of obviousness. *Ex parte Levengood*, 28 USPQ2d 1300, 1301 and *Ex parte Markowitz*, 143 USPQ 303, 305 (Bd. App. 1964).

Thus, for all of the foregoing reasons, reconsideration and withdrawal of the rejection of Claims 1 and 23 as amended and Claims 2-22 over Eckberg et al. in view of Desorcie is respectfully solicited.

Respectfully submitted,



Peter G. Dilworth
Reg. No. 26,450
Attorney for Applicants

DILWORTH & BARRESE, LLP
333 Earle Ovington Blvd.
Uniondale, NY 11553
(516) 228-8484 (tel)
(516) 228-8516 (fax)

PGD/PJF:kl